

FLEX-3000 HF-6M Transceiver

Overview

- Software Defined Radio Technology
- Full HF-6m coverage
- 100 Watts continuous output
- 96kHz real-time receive bandwidth
- Greater than 90db of Two-Tone 3rd order dynamic range
- Built in Automatic Antenna Tuner
- 12.2" X 2.1" X 12.4"
- Only 7 lbs!

The FLEX-3000 is a third generation software defined radio from FlexRadio Systems. It is a low cost/high performing HF-6M transceiver built with portability in mind. The FLEX-3000 form factor is designed to fit in a case along with a laptop and a power supply for mobile use or sit under a monitor at a base station. The FLEX-3000 utilizes high performance 24-bit A/D and D/A converters that enables its great close-in receiver performance in the sub \$1600 price class of mid-range transceivers. The FLEX-3000 offers greater than 90 dB Two-Tone 3rd order dynamic range at 2kHz spacing making it a higher performing radio than those costing two and three times as much.

www.flex-radio.com

FlexRadio Systems[®]
Software Defined Radios

FLEX-3000

General Specifications :

Rx Frequency Range :

10 kHz - 65 MHz (operating below 1.8 MHz requires external, customer provided filters to eliminate images)
160 - 6 m (specified performance in Amateur bands only)

Frequency Stability :

±2.5 ppm TCXO std. 32 °F to 122 °F (0 °C to +50 °C)
Optional ±0.5 ppm TCXO

Operating Temperature Range :

14 °F to 122 °F (-10 °C to +50 °C)

Emission Modes :

A1A (CW), A3E (AM), J3E (LSB,USB), F3E (FM),
F1B** (RTTY), F1D** (PACKET), F2D** (PACKET)

Frequency Steps :

1Hz minimum

Antenna Impedance :

50 Ohms, unbalanced
16 - 150 Ohms, unbalanced (With Automatic Tuner ON,
160-6m Amateur bands)

Power Consumption :

Rx 1.5A (typ.); Tx (100 W) 25A(max.)

Supply Voltage :

DC: DC 11-15 V Negative Ground
Transmitter output specified at 13.8VDC

Maximum Interconnect Cable Length :

Firewire - must comply with IEEE 1394a standard
No restriction on DC power cable within voltage
tolerance limits under load.

Special EMI/RFI Requirements :

CE Compliance Cable Requirements:

1 snap on ferrite bead on DC power cable (supplied)
2 snap on ferrite beads on FireWire cable (supplied)
1 snap on ferrite bead on FlexWire cable
All beads to be located adjacent to rear panel of radio.

Dimensions:

(WxHxD):
12.2" X 2.1" X 12.4" (23.5cm x 22.1 cm x 31.6 cm)
Weight: (approx.): 7 lbs (3.2 kg)

**Requires third party software

Receiver Specifications :

MDS :

MDS (typ) @ 14 MHz, 500Hz BW
Preamp OFF PRE1 PRE2
-121dBm -126dBm -135dBm

IP3:

+28 dBm at 14 MHz with preamp off at 2 kHz or less
tone spacing (S5 IM3 method)

Selectivity :

(-6/-60 dB):
CW 500 Hz -6/-60 dB: 500/640
SSB 2.4 kHz -6/-60 dB: 2.39/2.54
AM 6.6 kHz -6/-60 dB: 6.60/6.74

Image Rejection :

70 dB or better (160 - 6m Amateur bands)

Transmitter Specifications :

Transmitter Frequency Range :

160 - 6 m (Amateur bands only)

Power Output :

1 - 100 watts PEP CW and SSB at 13.8VDC input
voltage
25 watts AM carrier

Emission Modes Types :

A1A (CWU, CWL), J3E (USB, LSB), A3E (AM),
F3E (FM), DIGITAL (DIGU, DIGL)

Harmonic Radiation :

Better than -55 dB (160 - 10m Amateur bands)
Better than -60 dB (6m Amateur band)

SSB Carrier Suppression :

At least 55 dB below peak output

Undesired Sideband Suppression :

At least 55 dB below peak output

Audio Response (SSB):

Flat Response 20 Hz to 20 kHz,
3-band or 10-band Software Equalizer

3rd-order IMD :

Better than -33 dB below PEP @ 14.2MHz 100 watts
PEP

Microphone Impedance :

600 Ohms (200 to 10k W)

Balanced Line In Impedance :

600 Ohms (200 to 10k W)

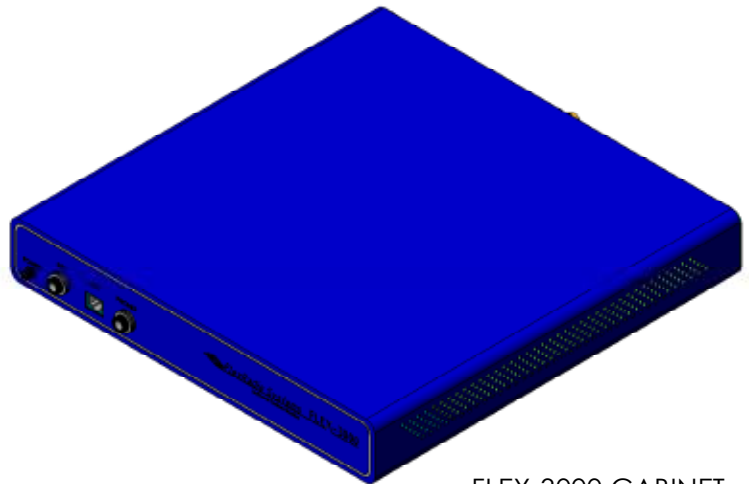
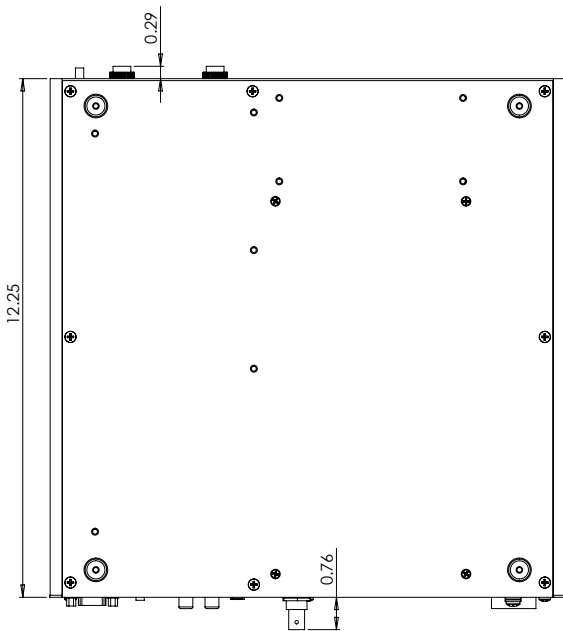
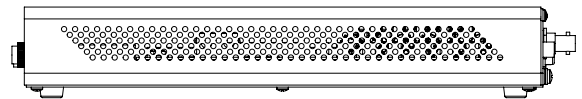
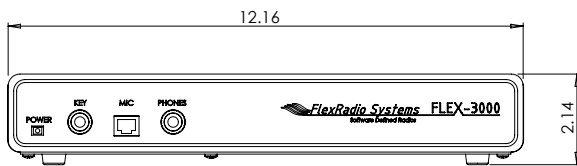
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 **FlexRadio Systems**[®]
Software Defined Radios

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FLEX-3000



FLEX-3000 CABINET
weight: 7LBS.
scale: 1/2

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